

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1 - 58 (Cancelled)

59. (New) Nanostructure having at least one elongated structure element comprising a first material, wherein said elongated structure element being 100nm in length or less, bears on at least one of its end portions a second material that differs from said first material in at least one property selected from: electrical conductivity, chemical reactivity and composition.

60. (New) Nanostructure according to claim 59 wherein the second material is metal or metal alloy.

61. (New) Nanostructure according to claim 59 wherein the second material is conductive polymer or insulating material.

62. (New) Nanostructure according to claim 59 wherein the second material is semiconductor.

63. (New) The nanostructure of claim 59, wherein said first material is selected from semiconductor material, insulating material, metal and mixtures thereof.

64. (New) Nanostructure having at least one elongated structure element comprising a material being a conductive polymer or an insulating material, wherein said elongated structure element bears on at least one of its end portions a semiconductor material, wherein said conductive polymer or insulating material being different from said semiconductor material in at least one property selected from: electrical conductivity, chemical reactivity and composition.

65. (New) The nanostructure of claim 59, wherein said semiconductor material is selected from Group II-VI semiconductors, Group III-V semiconductors, Group IV-VI semiconductors, Group IV semiconductors, alloys made of these semiconductors, combinations of the semiconductors in composite structures and core/shell structures of the above semiconductors.

66. (New) The nanostructure of claim 59 in the form of a tetrapod.

67. (New) The nanostructure according to claim 66 comprising a first material being CdSe or CdSe/ZnS in a core/shell layered arrangement, an elongated structure element of said tetrapod bearing on at least one of its end portions an electrically conductive zone made of gold.

68. (New) A method for forming a zone on at least one end portion of a nanostructure, wherein said zone differs from the whole

nanosstructure, the method comprising: contacting a solution comprising nanostructures composed of at least one elongated structure element, with a solution comprising an agent selected from metal source, metal alloy source, conductive polymer source, insulating material source and semiconductor source, to obtain upon isolation nanostructures being 100nm in length or less, bearing at least one zone on said at least one elongated structure thereof that differs from the nanosstructure in at least one property selected from: electrical conductivity, chemical reactivity and composition.

69. (New) A method according to claim 68 comprising: contacting a solution comprising nanostructures composed of at least one elongated structure element, with a solution comprising metal source or metal alloy source, to obtain upon isolation nanostructures bearing at least one zone comprising metal or metal alloy on said at least one elongated structure thereof.

70. (New) The method according to claim 68 wherein said nanosstructure is made of a first material comprising semiconductor material, insulating material, metal or mixtures thereof.

71. (New) The method according to claim 70 wherein said first material is semiconductor material.

72. (New) The method according to claim 71 wherein said branched shape comprises bipod, tripod and tetrapod.

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73. (New) A method for forming an electrically conductive zone on a nanostructure having at least one elongated structure element, the method comprising: contacting, an organic solution comprising semiconductor nanostructures with an organic solution comprising a metal or metal alloy source, a stabilizer and/or surfactant and/or electron donor to obtain upon precipitation semiconductor nanostructures of 100nm in length or less, bearing at least one electrically conductive zone comprising metal or metal alloy on said at least one elongated structure thereof.

74. (New) The method according to claim 73 wherein said nanostructures are in the form of nanorods, bipods, tripods, tetrapods, nanowires or nanotubes.

75. (New) Article of manufacture comprising the nanostructure of claim 59.

76. (New) An electronic device comprising the nanostructure of claim 59, or into which the nanostructure of claim 59 is integrated.

77. (New) An electrode comprising the nanostructure of claim 59.

78. (New) A transistor comprising the nanostructure of claim 59.

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79. (New) A field effect transistor comprising the nanostructure of claim 59.

80. (New) An optical device comprising the nanostructure of claim 59, or into which the nanostructure of claim 59 is integrated.

81. (New) Self assembled construct comprising a plurality of nanostructures according of claim 59, wherein each nanostructure is linked to another nanostructure in the construct through its conductive zone.